

COPY

Form PTO-1449				Docket Number 529552000200 (formerly 256602000600)	Application Number 09/905,212		
INFORMATION DISCLOSURE CITATION IN AN APPLICATION <i>(Use several sheets if necessary)</i>				Applicant	Venkatramnan RAMAKRISHMAN et al.		
				Filing Date July 13, 2001	Group A Subunit 1645163		
				Mailing Date June 10, 2002			
 <p style="text-align: center;">U.S. PATENT DOCUMENTS</p>							
Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date If Appropriate
FOREIGN PATENT DOCUMENTS							
Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES NO
OTHER DOCUMENTS <i>(including author, title, Date, Pertinent Pages, Etc.)</i>							
Examiner Initials	Ref. No.	Title					
<i>cjl</i>	1.	Allard, P. et al. (2000). "Another Piece of the Ribosome: Solution Structure of S16 and Its Location in the 30S Subunit," <i>Structure</i> 8(8): 875-882.					
	2.	Blundell, T. L. et al. (1976). <u>Protein Crystallography</u> . Academic Press: New York, NY., and Johnson, L. N., eds. pp. ix-xiv (Table of Contents Only).					
	3.	Brodersen, D.E. et al. (2000). "The Structural Basis for the Action of the Antibiotics Tetracycline, Pactamycin and Hygromycin B on the 30S Ribosomal Subunit," <i>Cell</i> 103:1143-1154.					
	4.	Carter, A. P. et al. (2000). "Functional Insights from the Structure of the 30S Ribosomal Subunit and its Interactions with Antibiotics," <i>Nature</i> 407:340-348.					
	5.	Clemons, W. M. et al. (2001). "Crystal Structure of the 30S Ribosomal Subunit from <i>Thermus Thermophilus</i> : Purification, Crystallization and Structure Determination," <i>J. Mol. Biol.</i> 310:827-843.					
	6.	Collaborative Computational Project 4 (1994). "The CCP4 Suite: Programs for Protein Crystallography," <i>Acta Cryst.</i> D50:760-763.					
	7.	Davies, C. et al. (1998). "The Crystal Structure of Ribosomal Protein S4 Reveals a Two-Domain Molecule with an Extensive RNA-Binding Surface: One Domain Shows Structural Homology to the ETS DNA-Binding Motif," <i>EMBO J.</i> 17:4545-4558.					
	8.	De la Fortelle, E. and Bricogne, G. (1997). "Maximum-Likelihood Heavy-Atom Parameter Refinement for Multiple Isomorphous Replacement and Multiwavelength Anomalous Diffraction Methods," In <u>Methods in Enzymology</u> , Carter, C. W., Jr. Sweet, R. M, eds. Academic Press, New York, 1997, pp. 472-494.					
EXAMINER: <i>cheycj</i>			DATE CONSIDERED: <i>5/21/03</i>				
EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.							

Form PTO-1449			Docket Number 529552000200 (formerly 256602000600)	Application Number 09/905,212																																																																															
INFORMATION DISCLOSURE CITATION IN AN APPLICATION <i>(Use several sheets if necessary)</i>			Applicant Venkatraman RAMAKRISHMAN et al.	JUN 18 2002 RECEIVED TECH CENTER 1600/2000 JUN 14 2002 PATENT & TRADEMARK OFFICE JC:3																																																																															
			Filing Date July 13, 2001 Mailing Date June 10, 2002		Group Art Unit 645-13																																																																														
<table border="1"> <tr> <td rowspan="2">9.</td> <td colspan="4">Dunbrack, R. L. et al (1997). "Meeting Review: the Second Meeting on the Critical Assessment of Techniques for Protein Structure Prediction (CASP2), Asilomar, California, December 13-16, 1996," <i>Folding and Design</i> 2(2):R27-R42.</td> </tr> <tr> <td>10.</td> <td colspan="3">Gabashvili, I. S. et al. (1999). "Major Rearrangements in the 70S Ribosomal 3D Structure Caused by a Conformational Switch in 16S Ribosomal RNA," <i>EMBO J.</i> 18(22):6501-6507.</td> </tr> <tr> <td>11.</td> <td colspan="4">Golden, B. L. et al. (1993). "Ribosomal Protein S17 Characterization of the Three-Dimensional Structure by 1H- and 15N-NMR," <i>Biochemistry</i> 32:12812-12820.</td> </tr> <tr> <td>12.</td> <td colspan="4">Goodford, P. J. (1985). "A Computational Procedure for Determining Energetically Favorable Binding Sites on Biologically Important Macromolecules," <i>J. Med. Chem.</i> 28:849-857.</td> </tr> <tr> <td>13.</td> <td colspan="4">Greer, J. et al. (1994). "Application of the Three-Dimensional Structures of Protein Target Molecules in Structure-Based Drug Design," <i>J. of Medicinal Chemistry</i> 37:1035-1054.</td> </tr> <tr> <td>14.</td> <td colspan="4">Helgstrand, M. et al. (1999). "Solution Structure of the Ribosomal Protein S19 from <i>Thermus Thermophilus</i>," <i>J. Mol. Biol.</i> 292:1071-1081.</td> </tr> <tr> <td>15.</td> <td colspan="4">Hope, H. et al. (1989). "Cryocrystallography of Ribosomal Particles," <i>Acta Cryst. B</i> 45:190-199.</td> </tr> <tr> <td>16.</td> <td colspan="4">Hüttenhofer, A. and Noller, H. F. (1992). "Hydroxyl Radical Cleavage of tRNA in the Ribosomal P-Site," <i>Proc. Natl Acad. Sci. USA</i> 89:7851-7855.</td> </tr> <tr> <td>17.</td> <td colspan="4">Jack, A. et al. (1976). "Crystallographic Refinement of Yeast Phenylalanine Transfer RNA at 2.5 Å Resolution," <i>J. Mol. Biol.</i> 108:619-649.</td> </tr> <tr> <td>18.</td> <td colspan="4">Markus, M. A. et al. (1998). "The Solution Structure of Ribosomal Protein S4 Delta41 Reveals Two Subdomains and a Positively Charged Surface that May Interact with RNA," <i>EMBO J.</i> 17(16):4559-4571.</td> </tr> <tr> <td>19.</td> <td colspan="4">Moazed, D. and Noller, H. F. (1987). "Interaction of Antibiotics with Functional Sites in 16S Ribosomal RNA," <i>Nature</i> 337:389-394.</td> </tr> <tr> <td>20.</td> <td colspan="4">Mougel, M. et al. (1993). "Minimal 16S rRNA Binding Site and Role of Conserved Nucleotides in <i>Escherichia Coli</i> Ribosomal Protein S8 Recognition," <i>Eur. J. Biochem.</i> 215:787-792.</td> </tr> <tr> <td>21.</td> <td colspan="4">Mueller, F. and Brimacombe, R. (1997). "A New Model for the Three-Dimensional Folding of <i>Escherichia Coli</i> 16 S Ribosomal RNA. I. Fitting the RNA to a 3D Electron Microscopic Map at 20 Å," <i>J. Mol. Biol.</i> 271:524-544.</td> </tr> <tr> <td>22.</td> <td colspan="4">Nowotny, V. and Nierhaus, K. H. (1988). "Assembly of the 30S Subunit from <i>Escherichia Coli</i> Ribosomes Occurs via Two Assembly Domains which Are Initiated by S4 and S7," <i>Biochemistry</i> 27:7051-7055.</td> </tr> <tr> <td>23.</td> <td colspan="4">Ogle, M. et al. (2001). "Recognition of Cognate Transfer RNA by the 30S Ribosomal Subunit," <i>Research Articles</i> 292:897-902.</td> </tr> <tr> <td>24.</td> <td colspan="4">Pioletti, M. et al. (2001). "Crystal Structures of Complexes of the Small Ribosomal Subunit with Tetracycline, Edeine and IF3," <i>EMBO Journal</i> 20(8):1829-1839.</td> </tr> </table>					9.	Dunbrack, R. L. et al (1997). "Meeting Review: the Second Meeting on the Critical Assessment of Techniques for Protein Structure Prediction (CASP2), Asilomar, California, December 13-16, 1996," <i>Folding and Design</i> 2(2):R27-R42.				10.	Gabashvili, I. S. et al. (1999). "Major Rearrangements in the 70S Ribosomal 3D Structure Caused by a Conformational Switch in 16S Ribosomal RNA," <i>EMBO J.</i> 18(22):6501-6507.			11.	Golden, B. L. et al. (1993). "Ribosomal Protein S17 Characterization of the Three-Dimensional Structure by 1H- and 15N-NMR," <i>Biochemistry</i> 32:12812-12820.				12.	Goodford, P. J. (1985). "A Computational Procedure for Determining Energetically Favorable Binding Sites on Biologically Important Macromolecules," <i>J. Med. Chem.</i> 28:849-857.				13.	Greer, J. et al. (1994). "Application of the Three-Dimensional Structures of Protein Target Molecules in Structure-Based Drug Design," <i>J. of Medicinal Chemistry</i> 37:1035-1054.				14.	Helgstrand, M. et al. (1999). "Solution Structure of the Ribosomal Protein S19 from <i>Thermus Thermophilus</i> ," <i>J. Mol. Biol.</i> 292:1071-1081.				15.	Hope, H. et al. (1989). "Cryocrystallography of Ribosomal Particles," <i>Acta Cryst. B</i> 45:190-199.				16.	Hüttenhofer, A. and Noller, H. F. (1992). "Hydroxyl Radical Cleavage of tRNA in the Ribosomal P-Site," <i>Proc. Natl Acad. Sci. USA</i> 89:7851-7855.				17.	Jack, A. et al. (1976). "Crystallographic Refinement of Yeast Phenylalanine Transfer RNA at 2.5 Å Resolution," <i>J. Mol. Biol.</i> 108:619-649.				18.	Markus, M. A. et al. (1998). "The Solution Structure of Ribosomal Protein S4 Delta41 Reveals Two Subdomains and a Positively Charged Surface that May Interact with RNA," <i>EMBO J.</i> 17(16):4559-4571.				19.	Moazed, D. and Noller, H. F. (1987). "Interaction of Antibiotics with Functional Sites in 16S Ribosomal RNA," <i>Nature</i> 337:389-394.				20.	Mougel, M. et al. (1993). "Minimal 16S rRNA Binding Site and Role of Conserved Nucleotides in <i>Escherichia Coli</i> Ribosomal Protein S8 Recognition," <i>Eur. J. Biochem.</i> 215:787-792.				21.	Mueller, F. and Brimacombe, R. (1997). "A New Model for the Three-Dimensional Folding of <i>Escherichia Coli</i> 16 S Ribosomal RNA. I. Fitting the RNA to a 3D Electron Microscopic Map at 20 Å," <i>J. Mol. Biol.</i> 271:524-544.				22.	Nowotny, V. and Nierhaus, K. H. (1988). "Assembly of the 30S Subunit from <i>Escherichia Coli</i> Ribosomes Occurs via Two Assembly Domains which Are Initiated by S4 and S7," <i>Biochemistry</i> 27:7051-7055.				23.	Ogle, M. et al. (2001). "Recognition of Cognate Transfer RNA by the 30S Ribosomal Subunit," <i>Research Articles</i> 292:897-902.				24.	Pioletti, M. et al. (2001). "Crystal Structures of Complexes of the Small Ribosomal Subunit with Tetracycline, Edeine and IF3," <i>EMBO Journal</i> 20(8):1829-1839.			
9.	Dunbrack, R. L. et al (1997). "Meeting Review: the Second Meeting on the Critical Assessment of Techniques for Protein Structure Prediction (CASP2), Asilomar, California, December 13-16, 1996," <i>Folding and Design</i> 2(2):R27-R42.																																																																																		
	10.	Gabashvili, I. S. et al. (1999). "Major Rearrangements in the 70S Ribosomal 3D Structure Caused by a Conformational Switch in 16S Ribosomal RNA," <i>EMBO J.</i> 18(22):6501-6507.																																																																																	
11.	Golden, B. L. et al. (1993). "Ribosomal Protein S17 Characterization of the Three-Dimensional Structure by 1H- and 15N-NMR," <i>Biochemistry</i> 32:12812-12820.																																																																																		
12.	Goodford, P. J. (1985). "A Computational Procedure for Determining Energetically Favorable Binding Sites on Biologically Important Macromolecules," <i>J. Med. Chem.</i> 28:849-857.																																																																																		
13.	Greer, J. et al. (1994). "Application of the Three-Dimensional Structures of Protein Target Molecules in Structure-Based Drug Design," <i>J. of Medicinal Chemistry</i> 37:1035-1054.																																																																																		
14.	Helgstrand, M. et al. (1999). "Solution Structure of the Ribosomal Protein S19 from <i>Thermus Thermophilus</i> ," <i>J. Mol. Biol.</i> 292:1071-1081.																																																																																		
15.	Hope, H. et al. (1989). "Cryocrystallography of Ribosomal Particles," <i>Acta Cryst. B</i> 45:190-199.																																																																																		
16.	Hüttenhofer, A. and Noller, H. F. (1992). "Hydroxyl Radical Cleavage of tRNA in the Ribosomal P-Site," <i>Proc. Natl Acad. Sci. USA</i> 89:7851-7855.																																																																																		
17.	Jack, A. et al. (1976). "Crystallographic Refinement of Yeast Phenylalanine Transfer RNA at 2.5 Å Resolution," <i>J. Mol. Biol.</i> 108:619-649.																																																																																		
18.	Markus, M. A. et al. (1998). "The Solution Structure of Ribosomal Protein S4 Delta41 Reveals Two Subdomains and a Positively Charged Surface that May Interact with RNA," <i>EMBO J.</i> 17(16):4559-4571.																																																																																		
19.	Moazed, D. and Noller, H. F. (1987). "Interaction of Antibiotics with Functional Sites in 16S Ribosomal RNA," <i>Nature</i> 337:389-394.																																																																																		
20.	Mougel, M. et al. (1993). "Minimal 16S rRNA Binding Site and Role of Conserved Nucleotides in <i>Escherichia Coli</i> Ribosomal Protein S8 Recognition," <i>Eur. J. Biochem.</i> 215:787-792.																																																																																		
21.	Mueller, F. and Brimacombe, R. (1997). "A New Model for the Three-Dimensional Folding of <i>Escherichia Coli</i> 16 S Ribosomal RNA. I. Fitting the RNA to a 3D Electron Microscopic Map at 20 Å," <i>J. Mol. Biol.</i> 271:524-544.																																																																																		
22.	Nowotny, V. and Nierhaus, K. H. (1988). "Assembly of the 30S Subunit from <i>Escherichia Coli</i> Ribosomes Occurs via Two Assembly Domains which Are Initiated by S4 and S7," <i>Biochemistry</i> 27:7051-7055.																																																																																		
23.	Ogle, M. et al. (2001). "Recognition of Cognate Transfer RNA by the 30S Ribosomal Subunit," <i>Research Articles</i> 292:897-902.																																																																																		
24.	Pioletti, M. et al. (2001). "Crystal Structures of Complexes of the Small Ribosomal Subunit with Tetracycline, Edeine and IF3," <i>EMBO Journal</i> 20(8):1829-1839.																																																																																		
EXAMINER: <i>Auger</i>		DATE CONSIDERED: 5/21/02																																																																																	
EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.																																																																																			

Form PTO-1449		Docket Number 529552000200 (formerly 256602000600)	Application Number 09/905,212
INFORMATION DISCLOSURE CITATION IN AN APPLICATION <i>(Use several sheets if necessary)</i>		Applicant Venkatraman RAMAKRISHMAN et al.	RECEIVED JUN 18 2002 TECH CENTER 1600/900 JC371
		Filing Date July 13, 2001 Mailing Date June 10, 2002	

25.	Prince, J. B. et al. (1982). "Covalent Crosslinking of tRNA 1Val to 16S RNA at the Ribosomal P-Site: Identification of Crosslinked Residues," <i>Proc. Natl. Acad. Sci. USA</i> 79:5450-5454.
26.	Rich, A. and RajBhandary, U. L. (1976). "Transfer RNA: Molecular Structure, Sequence, and Properties," <i>In Annual Reviews of Biochemistry</i> . E.E. Snell et al., eds. Annual Reviews, Inc.: Palo Alto, CA. pp. 805-860.
27.	Rose, S. J. III et al. (1983). "Binding of Yeast tRNAPhe Anticodon Arm to Escherichia Coli 30S Ribosomes," <i>J. Mol. Biol.</i> 167:103-117.
28.	Schluelzen, F. et al. (2000). "Structure of Functionally Activated Small Ribosomal Subunit at 3.3 Å Resolution," <i>Cell</i> 102:615-623.
29.	Tanaka, I. et al. (1998). "Matching the Crystallographic Structure of Ribosomal Protein S7 to a Three-Dimensional Model of the 16S Ribosomal RNA," <i>RNA</i> 4:542-550.
30.	Urlaub, H. et al. (1997). "Identification and Sequence Analysis of Contact Sites Between Ribosomal Proteins and rRNA in Escherichia Coli 30 S Subunits by a New Approach Using Matrix-Assisted Laser Desorption/Ionization-Mass Spectrometry Combined with N-Terminal Microsequencing," <i>J. Biol. Chem.</i> 272:14547-14555.
31.	VanLoock, M. S. et al. (1999). "Major Groove Binding of the tRNA/mRNA Complex to the 16S Ribosomal RNA Decoding Site," <i>J. Mol. Biol.</i> 285:2069-2078.
32.	von Ahsen, U. and Noller, H. F. (1995). "Identification of Bases in 16S rRNA Essential for tRNA Binding at the 30S Ribosomal P-Site," <i>Science</i> 267:234-237.
33.	Walter, W. P. et al. (1998). "Virtual Screening - An Overview," <i>Drug Delivery Today</i> 3(4):160-178.
34.	Wu, H. et al. (1993). "The Binding Site for Ribosomal Protein S8 in 16S rRNA and spc mRNA from Escherichia Coli: Minimum Structural Requirements and the Effects of Single Bulged Bases on S8-rRNA Interaction," <i>Nucleic Acids Res.</i> 22(9):1687-1695.

EXAMINER: <i>Henry</i>	DATE CONSIDERED: 5/14/03
EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.	

COPY

Form PTO-1449

Docket Number 256602000600

Application Number 09/905,212

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

(Use several sheets if necessary)

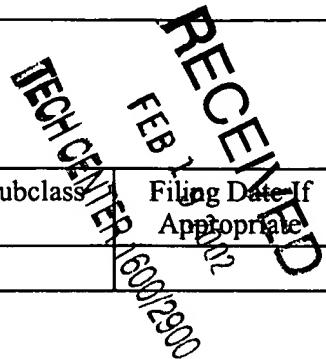
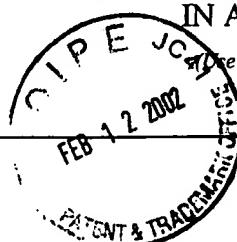
Applicant

Venkatraman RAMAKRISHNAN et al. *HS*

Filing Date July 13, 2001

Group Art Unit 163, Plunkett

Mailing Date January 30, 2002



U.S. PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES NO

OTHER DOCUMENTS

(including author, title, Date, Pertinent Pages, Etc.)

Examiner Initials	Ref. No.	Title
<i>cpc</i>	1.	Abrahams, J. P. (1997). "Bias Reduction in Phase Refinement by Modified Interference Functions: Introducing the Gamma Correction," <i>Acta Cryst D</i> 53:371-376.
	2.	Agalarov, S. C. et al. (2000). "Structure of the S15, S6, S18-rRNA Complex: Assembly of the 30S Ribosome Central Domain," <i>Science</i> 288:107-112.
	3.	Bhuyan, B. K. et al. (1961). "Pactamycin, A New Antitumor Antibiotic: Discovery and Biological Properties," <i>Antimicrob Agents Chemother</i> 184-190.
	4.	Böck, A. et al. (1979). "Ribosomal Ambiguity (Ram) Mutations Facilitate Dihydrostreptomycin Binding to Ribosomes," <i>FEBS Letters</i> 104:317-321.
	5.	Brink, M. F. et al. (1994). "Spectinomycin Interacts Specifically with the Residues G1064 and C1192 in 16S rRNA, Thereby Potentially Freezing This Molecule Into an Inactive Conformation," <i>Nucleic Acids Res</i> 22(3):325-331.
	6.	Brown, C. M. et al. (1993). "Two Regions of the Escherichia Coli 16S Ribosomal RNA Are Important for Decoding Stop Signals in Polypeptide Chain Termination," <i>Nucleic Acids Res</i> 21(9):2109-2115.
	7.	Brünger, A. T. et al. (1998). "Crystallography and NMR System: A New Software Suite for Macromolecular Structure Determination," <i>Acta Cryst. D</i> 54:905-921.
	8.	Cabanas, M. J. et al. (1978). "Inhibition of Ribosomal Translocation by Aminoglycoside Antibiotics," <i>Biochem Biophys Res Commun</i> 83(3):991-997.
	9.	Carter, A. P. et al. (2000). "Functional Insights from The Structure of the 30S Ribosomal Subunit and its Interactions with Antibiotics," <i>Nature</i> 407:340-348.

EXAMINER:

Olney

DATE CONSIDERED:

5/21/03

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

Form PTO-1449

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

(Use several sheets if necessary)

Docket Number 256602000600

Application Number 09/905,212

Applicant

Venkatraman RAMAKRISHNAN et al.

Filing Date July 13, 2001

Group Art Unit 1645

Mailing Date January 30, 2002

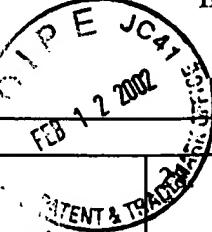
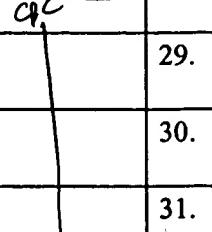
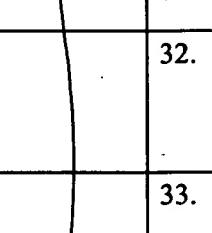
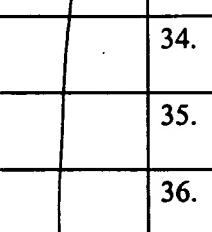
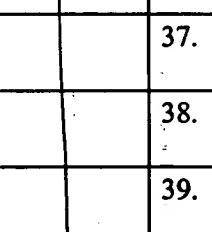
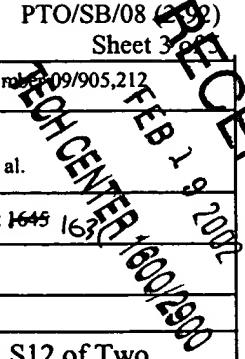
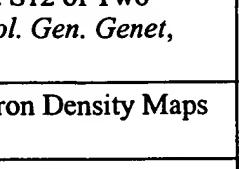
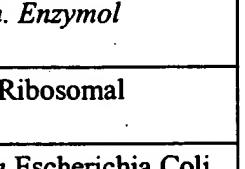
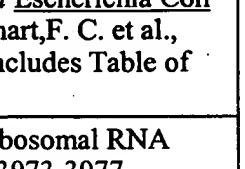
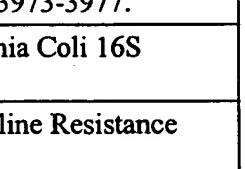
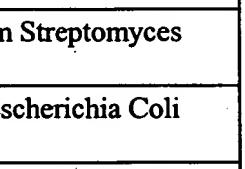
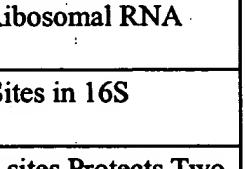
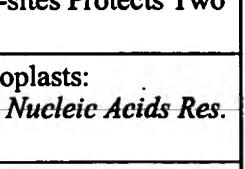
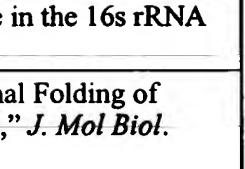
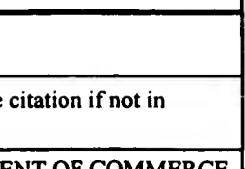
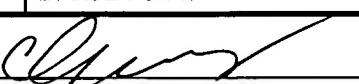
11.	Cate, J. H. et al. (1999). "X-Ray Crystal Structures of 70S Ribosome Functional Complexes," <i>Science</i> 285:2095-2104.
	Chopra, I. et al. (1992). "Tetracyclines, Molecular and Clinical Aspects," <i>J. Antimicrob Chemother</i> 29:245-277.
12.	Clemons, Jr. W. M. et al. (1999). "Structure of a Bacterial 30S Ribosomal Subunit at 5.5 Å Resolution," <i>Nature</i> 400:833-840.
13.	Cohen, L. B. et al. (1969). "Inhibition by Pactamycin of the Initiation of Protein Synthesis. Effect on the 30S Ribosomal Subunit," <i>Biochemistry</i> 8(4):1327-1335.
14.	Cowtan, K. and Main, P. (1998). "Miscellaneous Algorithms for Density Modification," <i>Acta Cryst.</i> 54:487-493.
15.	Donner, D. and Kurland, C. G. (1972). "Changes in the Primary Structure of a Mutationally Altered Ribosomal Protein S4 of Escherichia Coli," <i>Mol Gen Genet</i> 115:49-53.
16.	Egebjerg, J. and Garrett, R. A. (1991). "Binding Sites of the Antibiotics Pactamycin and Celesticetin on Ribosomal RNAs," <i>Biochimie</i> 73:1145-1149.
17.	Eustice, D. C and Wilhelm, J. M. (1984). "Mechanisms of Action of Aminoglycoside Antibiotics in Eucaryotic Protein Synthesis," <i>Antimicrob Agents Chemother</i> 26(1):53-60.
18.	Eustice, D. C. and Wilhelm, J. M. (1984). "Fidelity of the Eukaryotic Codon-Anticodon Interaction: Interference by Aminoglycoside Antibiotics," <i>Biochemistry</i> 23:1462-1467.
19.	Fourmy, D. et al. (1996). "Structure of the A Site of Escherichia Coli 16S Ribosomal RNA Complexed with an Aminoglycoside Antibiotic," <i>Science</i> 274:1367-1371.
20.	Funatsu, G. and Wittmann, H. G. (1972). "Location of Amino-Acid Replacements in Protein S12 Isolated from Escherichia Coli Mutants Resistant to Streptomycin," <i>J. Mol Biol</i> 68:547-550.
21.	Funatsu, G. et al. (1972). "Ribosomal Proteins. XXXI. Comparative Studies on Altered Proteins S4 of Sic Escherichia Coli Revertants from Streptomycin Dependence," <i>Mol Gen Genet</i> 115:131-139.
22.	Garrett, R. A. et al., eds (2000). <u>The Ribosome. Structure, Function, Antibiotics and Cellular Interactions</u> . ASM Press, Washington DC. pp. v-viii (Table of Contents Only).
23.	Geigenmüller, U. and Nierhaus, K. H. (1986). "Tetracycline Can Inhibit tRNA Binding to the Ribosomal P Site as Well as to the A Site," <i>Eur J. Biochem</i> 161:723-726.
24.	Glotz, C. et al. (1988). "Three Dimensional Crystals of Ribosomes and Their Subunits from eu and Archaeobacteria," <i>Biochem Int</i> . 15(5):953-960.
25.	Gonzales, A. et al. (1978). "Studies on The Mode of Action of Hygromycin B, An Inhibitor of Translocation in Eukaryotes," <i>Biochim Biophys Acta</i> 521:459-469.
26.	Gravel, M. et al. (1987). "Cross-Linking of Streptomycin to the 16S Ribosomal RNA of Escherichia Coli," <i>Biochemistry</i> 26:6227-6232.
27.	Hartmann, R. K. and Erdmann, V. A. (1989). "Thermus Thermophilus 16S rRNA is Transcribed from an Isolated Transcription Unit," <i>J. Bacteriol</i> 171(6):2933-2941.

EXAMINER:

DATE CONSIDERED:

5/21/03

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION <i>(Use several sheets if necessary)</i>		Docket Number 256602000600	
		Application Number 09/905,212	
		Applicant Venkatraman RAMAKRISHNAN et al.	
		Filing Date July 13, 2001	Group Art Unit 1645 1637
Mailing Date January 30, 2002			
              			
29.	Ito, T. and Wittmann, H. G. (1973). "Amino Acid Replacements in Proteins S5 and S12 of Two <i>Escherichia Coli</i> Revertants from Streptomycin Dependence to Independence," <i>Mol. Gen. Genet.</i> , 127:19-32.		
30.	Jones, T. A. et al. (1991). "Improved Methods for Building Protein Models in Electron Density Maps and the Location of Errors in these Models," <i>Acta. Cryst.</i> A47: 110-119.		
31.	Jones, T. A. & Kjeldgaard, M. (1997). "Electron-Density Map Interpretation" <i>Meth. Enzymol</i> 277B:173-207.		
32.	Kolesnikov, I. V. et al. (1996). "Tetracyclines Induce Changes in Accessibility of Ribosomal Proteins to Proteases," <i>Biochimie</i> 78:868-873.		
33.	Kurland, C. G. et al. (1996). "Limitations of Translational Accuracy" Chapter 65 <i>In Escherichia Coli and Salmonella, Cellular and Molecular Biology</i> , Second Edition, Volume 2, Neidhart, F. C. et al., eds. American Society for Microbiology Press, Washington D.C., pp. 979-1004. Includes Table of Contents.		
34.	Leclerc, D. et al. (1991). "Mutations in the 915 Region of <i>Escherichia Coli</i> 16S Ribosomal RNA Reduce the Binding of Streptomycin to the Ribosome," <i>Nucleic Acids Res.</i> 19(14):3973-3977.		
35.	Lodmell, J. S. and Dahlberg, A. E. (1997). "A Conformational Switch in <i>Escherichia Coli</i> 16S Ribosomal RNA During Decoding of Messenger RNA," <i>Science</i> , 277:1262-1267.		
36.	Manavathu, E. K. et al. (1990). "Molecular Studies on the Mechanism of Tetracycline Resistance Mediated by Tet(O)," <i>Antimicrob Agents Chemother</i> 34(1):71-77.		
37.	Mann, R. L. and Bromer, W. W. (1958). "The Isolation of a Second Antibiotic from <i>Streptomyces Hygroscopicus</i> ," <i>J. Am. Chem. Soc.</i> 80:2714-2716.		
38.	Melançon, P. et al. (1984). "Cross-Lining of Streptomycin to the 30S Subunit of <i>Escherichia Coli</i> with Phenylglyoxal," <i>Biochemistry</i> 23:6697-6703.		
39.	Melançon, P. et al. (1988). "A Mutation in the 530 Loop of <i>Escherichia Coli</i> 16S Ribosomal RNA Causes Resistance to Streptomycin," <i>Nucleic Acids Res</i> 16:9631-9339.		
40.	Moazed, D. and Noller, H. F. (1987). "Interaction of Antibiotics with Functional Sites in 16S Ribosomal RNA," <i>Nature</i> 327:389-394.		
41.	Moazed, D. and Noller, H. F. (1990). "Binding of tRNA to the Ribosomal A and P-sites Protects Two Distinct Sets of Nucleotides in 16S rRNA," <i>J. Mol. Biol.</i> 211:135-145.		
42.	Montandon, P. E. et al. (1985). "Streptomycin-Resistance of <i>Euglena Gracilis</i> Chloroplasts: Identification of a Point Mutation in the 16S rRNA Gene in an Invariant Position," <i>Nucleic Acids Res.</i> 13(12):4299-4310.		
43.	Montandon, P. E. et al. (1986). "E. Coli Ribosomes with a C912 to U Base Change in the 16s rRNA are Streptomycin Resistant," <i>EMBO J.</i> 5(3):3705-3708.		
EXAMINER: 		DATE CONSIDERED: 5/24/03	
EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.			

RECEIVED
U.S. PATENT AND TRADEMARK OFFICE
FEB 19 2002
16001290

Form PTO-1449		Docket Number 256602000600	Application Number 09/655,212
INFORMATION DISCLOSURE CITATION IN AN APPLICATION		Applicant Venkatraman RAMAKRISHNAN et al.	
(Use several sheets if necessary)		Filing Date July 13, 2001	Group Art Unit 1645 1631
		Mailing Date January 30, 2002	
FEB 12 2002			
44.	Oehler, R. et al. (1997). "Interaction of Tetracycline with RNA: Photoincorporation into Ribosomal RNA of Escherichia Coli," <i>Nucleic Acid Res</i> 25(6):1219-1224.		
45.	Pape, T. et al. (2000). "Conformational Switch in the Decoding Region of 16s rRNA During Aminoacyl-tRNA Selection on the Ribosome," <i>Nat. Struct. Biol.</i> 7:104-107.		
46.	Pinard, R. et al. (1993). "The 5' Proximal Helix of 16S rRNA is Involved in the Binding of Streptomycin to the Ribosome", <i>FASEB J.</i> 7:173-176.		
47.	Powers, T. and Noller, H. F. "A Functional Pseudoknot in 16S Ribosomal RNA," <i>Embo J.</i> 10:2203-2214. 199		
48.	Ross, J. I. et al: (1998). "16S rRNA Mutation Associated with Tetracycline Resistance in a Gram-Positive Bacterium," <i>Antimicob Agent Chemother</i> 42(7):1702-1705.		
49.	Spahn, C. M. and Prescott, C. D. (1996). "Throwing a Spanner in the Works: Antibiotics and the Translation Apparatus," <i>J. Mol Med</i> 74:423-439.		
50.	Spangler, E. A. and Blackburn, E. H. (1985). "The Nucleotide Sequence of the 17S Ribosomal RNA Gene of Tetrahymena Thermophila and the Identification of Point Mutations Resulting in Resistance to the Antibiotics Paromomycin and Hygromycin," <i>J. Biol. Chem.</i> 260(10):6334-6340.		
51.	Tejedor, R. et al. (1985). "Photoaffinity Labeling of the Pactamycin Binding Site on Eubacterial Ribosomes," <i>Biochemistry</i> 24:3667-3672.		
52.	Terwilliger, T. and Berendzen, J. (1999). "Automated MAD and MIR Structure Solution," <i>Acta Cryst. D</i> 55:849-861.		
53.	Timms, A. R. and Bridges, B.A. (1993). "Double, Independent Mutational Events in the rpsL Gene of Escherichia Coli: and Example of Hypermutability," <i>Mol. Microbiol.</i> 9:335-342.		
54.	Timms, A. R. et al. (1992). "Mutant Sequences in the rpsL Gene of Eschrichia Coli B/r: Mechanistic Implications for Spontaneous and Ultraviolet Light Mutagenesis," <i>Mol Gen Genet</i> 232:89-96.		
55.	Tocilj, A. et al. (1999). "The Small Ribosomal Subunit from <i>Thermus Thermophilus</i> at 4.5 Resolution: pattern Fittings and the Identification of a Functional Site," <i>Proc. Natl. Acad. Sci. USA</i> 96:14252-14257.		
56.	Trakhanov, S. D. et al. (1987). "Crytallization of 70S Ribosomes and 30S Ribosomal Subunits from <i>Thermus Thermophilus</i> ," <i>FEBS Letters</i> 220:319-322.		
57.	Tubulekas, I. et al. (1991). "Mutant Ribosomes Can Generate Dominant Kirromycin Resistance," <i>J. Bacteriol.</i> 173(12):3635-3643.		
58.	van Acken, U. (1975). "Proteinchemical Studies on Ribosomal Proteins S4 and S12 from Ram (Ribosomal Ambiguity) Mutants of Escherichia Coli," <i>Mol Gen Genet.</i> 140:61-68.		
59.	von Böhnen, K. et al. (1991). "Characterization and Preliminary Attempts for Derivatization of Crystals of Large Ribosomal Subunits from <i>Haloarcula Marismortui</i> Diffracting to 3 Å Resolution," <i>J. Mol. Biol.</i> 222:11-15.		
60.	Wimberly, B. T. et al. (2000). "Structure of the 30S Ribosomal Subunit," <i>Nature</i> 407:327-339.		
EXAMINER:	DATE CONSIDERED:		
EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.			

Form PTO-1449

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

(Use several sheets if necessary)

Docket Number 256602000600

Application Number 09/905,241

Applicant

Venkatraman RAMAKRISHNAN et al.

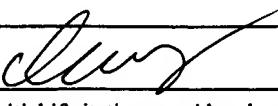
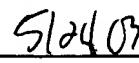
Filing Date July 13, 2001

Group Art Unit 1645

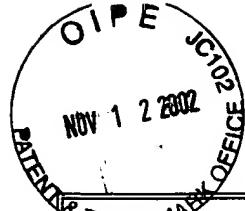
Mailing Date January 30, 2002

RECEIVED
U.S. PATENT AND TRADEMARK OFFICE
FEB 19 2001
1645
18012800

 61. PATENT FEE	Wittmann-Liebold, B. and Greuer, B. (1978). "The Primary Structure of Protein S5 from the Small Subunit of the Escherichia Coli Ribosome," <i>FEBS Letters</i> 95:91-98.
62.	Woodcock, J. et al. (1991). "Interaction of Antibiotics with A- and P-Site-Specific Bases in 16S Ribosomal RNA," <i>EMBO J.</i> 10:3099-3103.
63.	Yonath, A. et al. (1988). "Characterization of Crystals of Small Ribosomal Subunits," <i>J. Mol. Biol.</i> 203:831-834.
64.	Yonath, A. et al. (1998). "Crystallographic Studies on the Ribosome, A Large Macromolecular Assembly Exhibiting Severe Nonisomorphism, Extreme Beam Sensitivity and No Internal Symmetry," <i>Acta Cryst. A54</i> : 945-955.
65.	Yoshizawa, S. et al. (1999). "Recognition of the Codon-Anticodon Helix by Ribosomal RNA," <i>Science</i> 285:1722-1725.
66.	Yusupov, M. M. et al. (1988). "M. B. A: New Crystalline Form of 30S Ribosomal Subunits from <i>Thermus Thermophilus</i> ," <i>FEBS Letters</i> 238:113-115.
67.	Zierhut, G. et al. (1979). "Comparative Analysis of the Effect of Aminoglycosides on Bacterial Protein Synthesis <i>In Vitro</i> ," <i>Eur. J. Biochem.</i> 98:577-583.

EXAMINER: DATE CONSIDERED: 

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



TRADEMARK 1449 U.S. Department of Commerce Patent and Trademark Office				Attorney Docket No.		Serial No.		
				22620/2012		09/905,212		
				Applicant(s): Ramakrishnan, et al.				
				Filing Date: July 13, 2001		Group: 1645 1631		
U.S. PATENT DOCUMENTS								
Examiner Initial		Patent No.	Date	Name	Class	Subclass	Filing Date (if appropriate)	
FOREIGN PATENT DOCUMENTS								
Examiner Initial		Document No.	Publication Date	Country	Class	Subclass	Translation	
							YES	NO
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)								
CK	1.	Otwinowski and Minor (1997). "Processing of X-Ray Diffraction Data Collected in Oscillation Mode," <i>Methods in Enzymology</i> 276:307-326.						
EXAMINER <i>elusky</i>				DATE CONSIDERED 5/20/03				
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant. **Copies of references not provided at the time of this submission.								

RECEIVED
 NOV 14 2002
 TECH CENTER 1600/2900